

SEARCH UPDATE FOR 09/446,317 11/13/01

(FILE 'HOME' ENTERED AT 13:16:52 ON 09 NOV 2001)

FILE 'MEDLINE' ENTERED AT 13:17:00 ON 09 NOV 2001

L1 0 S HERPES AND THYMIDINE KINASE AND TRANSFECT? AND
VITRO AND PEI
L2 701 S HERPES AND THYMIDINE KINASE AND TRANSFECT?
L3 1 S L2 AND POLYETHYLENEIMINE
L4 1 S HERPES AND THYMIDINE KINASE AND TRANSFECT? AND PEI
L5 397 S L2 AND (VITRO OR CULTUR?)
L6 791 S COVALENT COMPLEX
L7 156 S A COVALENT COMPLEX OF
L8 156 S IN A COVALENT COMPLEX
L9 1 S L6 AND (DNA OR NUCLEIC OR PLASMID OR RNA OR DEOXY)
AND (PEI O

(FILE 'HOME' ENTERED AT 14:18:58 ON 09 NOV 2001)

FILE 'MEDLINE' ENTERED AT 14:19:04 ON 09 NOV 2001

L1 133 S DEAE DEXTRAN AND TRANSFEC?
L2 6 S L1 AND (THYMIDINE KINASE OR CYTOKINE)
L3 612 S DEAE DEXTRAN OR DEAE-DEXTRAN
L4 1 S L3 AND CYTOKINE
L5 133 S L3 AND TRANSFEC?
L6 3 S L5 AND INTERLEUKIN
L7 0 S L5 AND (IL1 OR IL2 OR IL3 OR IL4 OR IL5 OR IL6 OR IL7 OR IL8
L8 12 S L3 AND (INTERLEUKIN OR IL)
L9 1 S L3 AND (TUMOR ANTIGEN OR P53)
L10 72 S L3 AND (IFN OR INTERFERON OR CSF)
L11 2 S L3 AND (CSF OR COLONY STIMULATING FACTOR)

FILE 'CAPLUS, EMBASE, BIOSIS' ENTERED AT 14:55:31 ON 09 NOV 2001

L12 7 S L11
L13 6 DUP REM L12 (1 DUPLICATE REMOVED)
L14 19 S L2
L15 12 DUP REM L14 (7 DUPLICATES REMOVED)
L16 5 S L15 AND HERPES

S #

Updt
Database

Query

Time

Comment

S3107

U

USPT

(5714166.pn.) and attach\$

2001-11-13

07:52:57

S3106

U

USPT

(5714166.pn.) and (polyethylene glycol or polyethyleneglycol or peg or poly(ethyleneglycol) or poly(ethylene glycol))

2001-11-13

07:52:15

S3105

U

USPT

5714166.pn.

2001-11-13

07:50:49

S3104

U

USPT

(5919442.pn. or 5714166.pn. or 5661025.pn. or 5871710.pn.) and strikingly

2001-11-09

15:46:20

S3103

U

USPT

(5919442.pn. or 5714166.pn. or 5661025.pn. or 5871710.pn.) and deae

2001-11-09

15:12:07

S3102

U

USPT

transfec\$ and deae dextran and cytokine near5 example

2001-11-09

14:45:05

S3101

U

USPT

cytokine near5 example

2001-11-09

14:44:15

S3100

U

USPT

(5919442.pn. or 5714166.pn. or
5661025.pn. or 5871710.pn.) and
nucleic

2001-11-09

14:00:05

S3099

U

USPT

(5919442.pn. or 5714166.pn. or
5661025.pn. or 5871710.pn.) and
(peg or polyethylene glycol or
polyethyleneglycol)

2001-11-09

13:53:01

S3098

U

USPT

PEI and transfec? and (cytokine or
tumor antigen or thymidine kinase)

2001-11-09

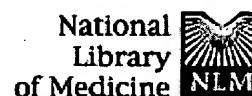
12:40:03

S3097

U

USPT

(5919442.pn. or 5714166.pn. or
5661025.pn. or 5871710.pn.) and
(cytokine or antigen or thymidine
kinase)



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Book	
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☐ 1: Gene Ther 1997 May;4(5):409-18Related Articles, **NEW** Books

PubMed Services

Coupling of cell-binding ligands to polyethylenimine for targeted gene delivery.

Kircheis R, Kichler A, Wallner G, Kursa M, Ogris M, Felzmann T, Buchberger M, Wagner E.

Boehringer Ingelheim R&D, Vienna, Austria.

Related Resources

Recently the high transfection potential of the cationic polymer polyethylenimine (PEI) was described (Boussif O et al. Proc Natl Acad Sci USA 1995; 92: 7297-7301). To combine the promising DNA delivering activity of PEI with the concept of receptor-mediated gene delivery, cell-binding ligands (transferrin or antiCD3 antibody) were incorporated by covalent linkage to PEI. DNA complexes of PEI or ligand-PEI conjugates were tested for transfection of cultured neuroblastoma Neuro 2A cells, melanoma B16 or H225 cells, erythroid leukemic K562 cells and T cell leukemia Jurkat E6.1 cells. Depending on the cell line, incorporation of the cell-binding ligand resulted in an up to 1000-fold increased transfection efficiency. This activity depends on ligand-receptor interaction and was observed also at low PEI cation:DNA anion ratios where ligand-free PEI lacks efficiency. Depending on the cell-binding ligand, specific targeting (CD3 antibody, Jurkat cells) can be achieved. Gene transfer can be augmented by the addition of an endosome-destabilizing influenza peptide, but is not dependent on the presence of additional endosomolytic agents. Application of transferrin-PEI for the production of murine interleukin-2 in B16 cells resulted in exceptionally high secretion rates of 19 micrograms IL-2 protein per 10(6) cells per 24 h.

PMID: 9274717 [PubMed - indexed for MEDLINE]

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